

MOTOR PERFORMANCE		Winding codes	3TA	3VA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1870	1870		
Fc	Continuous force	N	497	470		
Fs	Standstill force	N	376	354		
Ip	Peak current	Arms	27.1	46.5		
Ic	Continuous current	Arms	3.38	5.47		
Is	Standstill current	Arms	2.56	4.15		
vs	Rated low speed	mm/s	0.12	0.12		
Pc	Power dissipation @ Ic	W	187	187		
Fd	Max. detent force (average to peak)	N	23	23		
Fa	Attraction force	N	3600	3600		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	155	90.6		
Ku	Back EMF constant (*)	Vrms/(m/s)	92.8	54.1		
Km	Motor constant	N/√W	45.9	43.4		
R20	Electrical resistance at 20°C (*)	Ohm	7.63	2.91		
L	Electrical inductance (*)	mH	83.4	28.5		
rth	Thermal time constant	s	2590	2570		
Rth	Thermal resistance	K/W	0.584	0.585		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	4.36	4.26		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.05	0.05		
x	Assumed stroke	m	0.51	0.51		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.

Hypotheses and tolerances are in ETEL Integration Manual.

Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

